

- attach. ent. & flexor carpi ulnaris
- Medial & anterior surfaces - origin of
 - flexor digitorum profundus.
- Lower $\frac{1}{3}$ anterior surface
 - pronator quadratus.
- Lateral surface - posterior muscles.
- Middle $\frac{1}{3}$ ^{lateral} surface - origin of
 - abductor pollicis longus.
 - extensor pollicis longus
 - extensor indicis
- Lower end - styloid process to back.
 - sharp groove underneath.
 - round head

- Radius - forca capitis.
- band around head.
 - head
 - neck
 - bicapital tuberosity
 - smooth in front for bone.
 - rough behind for biceps.

upper $\frac{1}{3}$ of shaft - supinator brevis
 posterior lateral side $\frac{1}{2}$ way down.

pronator teres.
 oblique line from bicapital tuberosity
 to pronator teres.
 - flexor digitorum sublimis.

Middle $\frac{1}{2}$ - flexor pollicis longus (thumb)

Lower $\frac{1}{4}$ - pronator quadratus.

Post of styloid - brachio-radialis (insertion)

● Back of radius

upper - supinator

middle $\frac{1}{3}$ - abductor pollicis longus

extensor pollicis brevis

lower end - lower $\frac{1}{3}$ - covered by tendons of
extensor muscles

ulnar notch - medial side

styloid process - radial side

dorsal tubercle

Styloid process of radius lies $\frac{1}{2}$ to $\frac{3}{4}$ " lower
than " " of ulna.

● Applied Anatomy

Fractures by indirect violence
in mid-shaft - radius only,
more often.

Common fracture - fracture of olecranon.

Colles fracture - fracture of lower $\frac{1}{4}$
of radius, usually transverse

Obscure by levels of styloid processes
Fracture of both bones.

Muscles - with is prime movers

Prime movers - bring about desired action.

Antagonist muscles - diametrically oppose action of prime mover.

Triceps oppose Brachialis.

Synergist - that muscle which neutralizes action of a prime mover - when the latter is passing over two or more joints - may perform two or more actions.

Fixation muscle - any muscle which acts to prevent equilibrium of body from being disturbed.

Cranium - 1) Base.

- oval, broader behind.
- 2 parts - anterior + posterior.
- deeper behind than in front.
- Foramen Magnum - Great Window.

in floor of skull for spinal cord as it leaves brain.

- beside F.M. - like facets for articulation.
- Occipital Condyles for 1st cervical vertebrae.

2) Vault - side walls + roof.

- cracks separate bones.
- Frontal bone - single bone of forehead.
- Occipital bone - single bone at back.
- Parietal bones - sides r. + l.
- Temporal bones - below parietal making part of temple, surrounds internal opening of the ear + having a bump called mastoid process. r + l.
- Sphenoid bone - r. + l. at side, in front of temporal bones.

Vault has outer + inner table of hard flat bone + spongy bone inside.

Use - protects brain but not heavy.

Bones of face. 14 bones.

- 1) lower jaw or mandible.
- 2) Upper jaw or maxilla.

Contains organs of sight + smell, openings of food + air passages, eye sockets or orbits.

Suture - openings or joints.

Skeleton of the limbs.

Characteristics of upper & lower limb.

- 1) attached to axial skeleton by a girdle of upper limb - collar bone & shoulder blade.
- 2) each has 3 segments.
 - upper segment with a single bone.
 - middle " " a pair of bones.
 - lower " " several bones.

Differences.

- Upper limb designed for mobility, a grasping organ.
- Lower limb designed for strength, for weight & progression.

Upper limb girdle (shoulder girdle)

Attaches upper limb to axial skeleton.
loosely jointed & freely movable for mobility.
4 bones in 2 pairs.

Clavicles r & l. (collar-bones)

Scapulae r & l. (shoulder-blades)

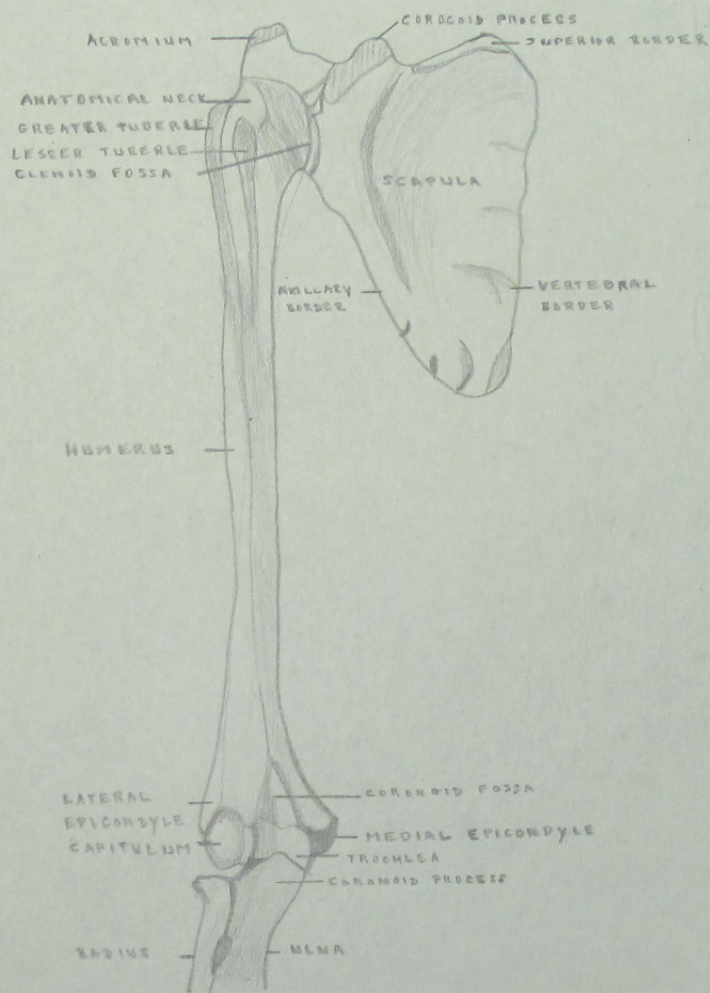
- separated behind, only clavicles attached to sternum. One attachment

Clavicle - (a little key)

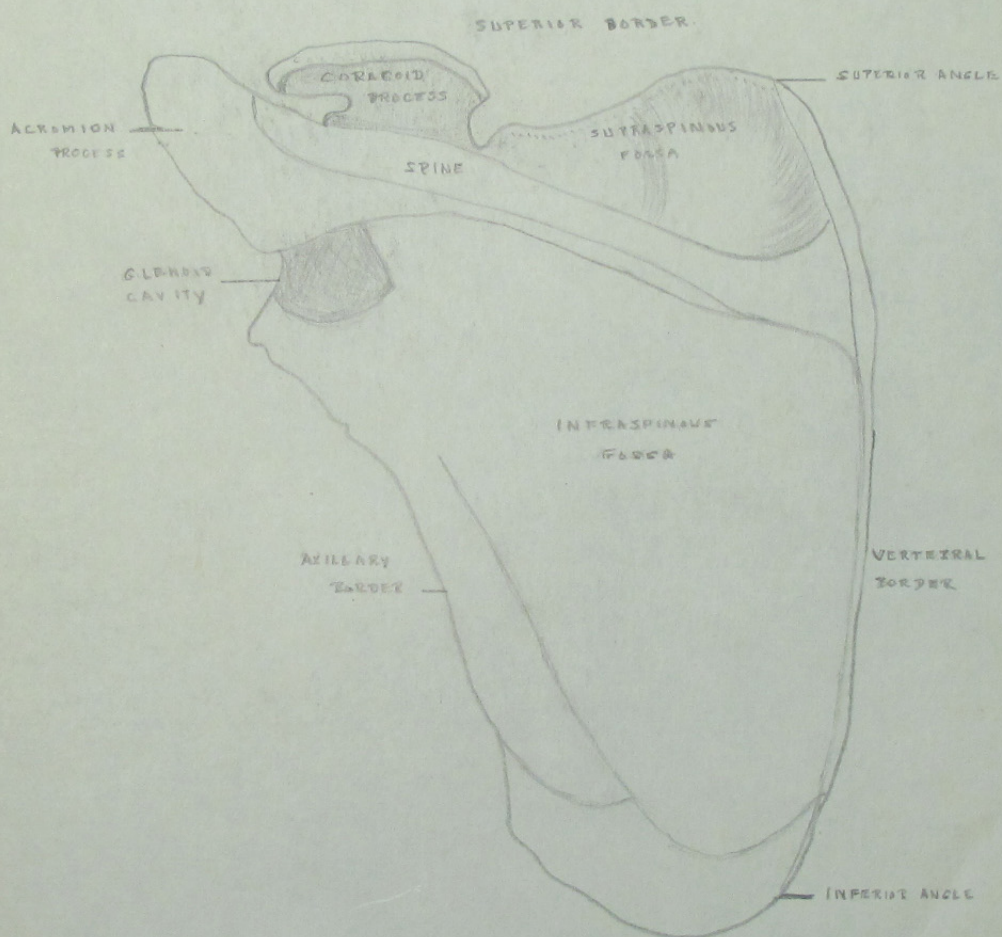
- long bone.
- runs horizontally & is connected medially with the sternum & laterally with scapula.
- centre part shaft.
- medial end - bumpy, sits on upper lateral corner of sternum, only point attached.
- lateral end - flat, articulates (joins) acromion of the scapula.

Use - acts as a brace - to hold shoulder away from upper limb, but attached to trunk, to allow free movement.

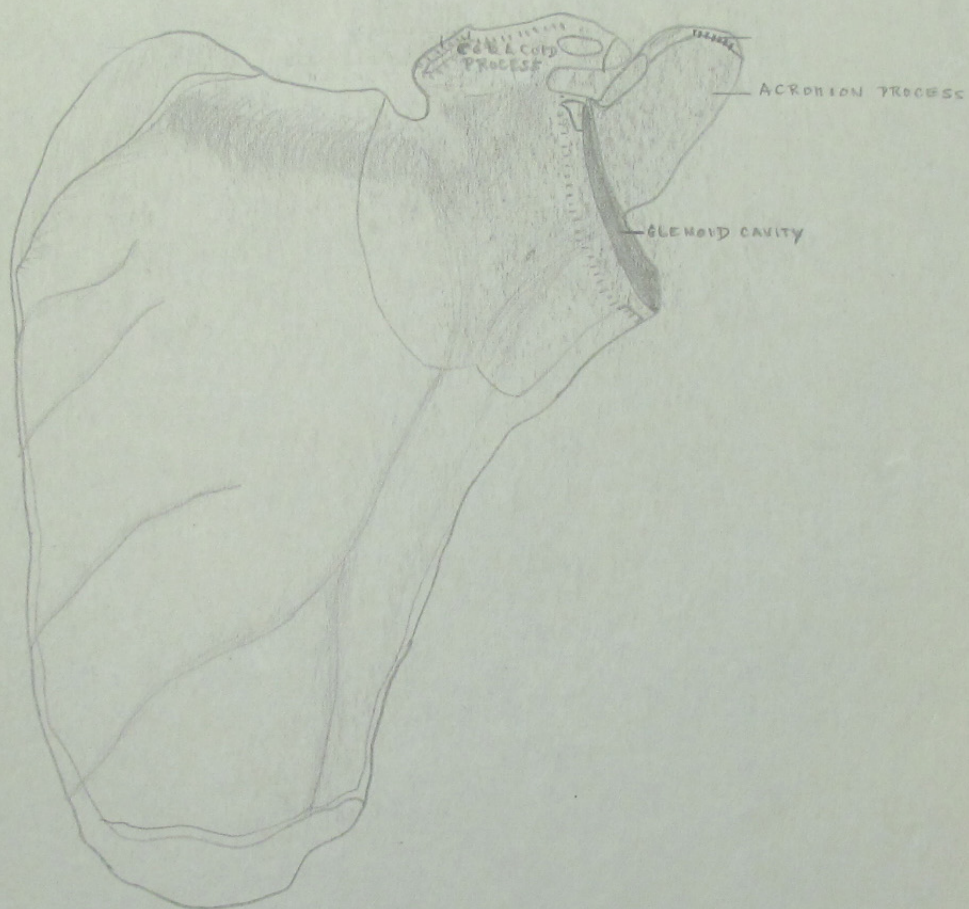
ANTERIOR VIEW OF HUMERUS AND SCAPULA (RIGHT)



DORSAL ASPECT OF LEFT SCAPULA



VENTRAL ASPECT OF LEFT SCAPULA



Use - muscle attachment. (many)

+ heaviest muscles to lateral border.
thick + heavy.

- to make joints - at shoulder - glenoid cavity
receives Humerus.

- between acromion + lateral
end of clavicle. acromio clavicular.

Bones.

I Femur

II Tibia
Fibula

III Tarsal
Metatarsal
Phalanges

I. Humerus

II Radius
Ulna

III Carpal
Metacarpal
Phalanges.

Humerus - proximal segment bone.

- lies between shoulder + elbow joints.

- long bone - shaft + 2 ends.

1) upper end - use - to fit glenoid of scapula,
has head ($\frac{1}{3}$ of sphere)

2) - has 2 tubercles (little lumps)

use - for attachment of short muscles +
to steady the shoulder.

called greater on lateral side of
upper end + the lesser on front.

2) has 2 necks.

a) anatomical neck is a
contraction between the head +
the tubercles.

b) surgical neck is below
both tubercles. (where bone breaks,
site of fracture)



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